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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,351	02/24/2004	Elizabeth Kornecki	19658Z	8733

7590 08/06/2009

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EXAMINER	
WANG, CHANG YU	

ART UNIT	PAPER NUMBER
1649	

MAIL DATE	DELIVERY MODE
08/06/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/785,351	KORNECKI ET AL.	
	Examiner	Art Unit	
	Chang-Yu Wang	1649	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *5/13/09*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18 and 21-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18 and 21-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

RESPONSE TO AMENDMENT

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/13/09 has been entered.

Status of Application/Amendments/claims

2. Applicant's amendment filed 5/13/09 is acknowledged. Claims 1-17 and 19-20 are cancelled. Claims 23-31 are newly added. Claims 18, 21-22 and new claims 23-31 are pending in this application and under examination in this office action.

3. Any objection or rejection of record, which is not expressly repeated in this office action, has been overcome by Applicant's response.

4. Applicant's arguments filed on 5/13/09 have been fully considered but they are not deemed to be persuasive for the reasons set forth below.

Claim Rejections/Objections Maintained

In view of the amendment filed on 5/13/09, the following rejections are maintained.

Claim Objections

5. Claims 24 and 25 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claims 24 and 25 depend from claims 19 and 20 respectively. However, claims 19 and 20 are canceled. Claims 24 and 25 are interpreted as depending from claims 21 and 22 respectively. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18 and 21-31 are rejected under 35 U.S.C. 102(b) as being anticipated by GenBank accession number AA101561, October 1996. The rejection is maintained for the reasons made of record.

Claims 18 and 21-31 as amended are drawn to DNA oligomers capable of hybridizing in full length under high stringency conditions to a nucleic acid molecule sequence selected from the group consisting of SEQ ID NO:1, nucleotides 16-912 of SEQ ID NO:1 and nucleotides 97-912 of SEQ ID NO:1 wherein the high stringency hybridization conditions are overnight hybridization at about 68^{o}C in 6XSSC and a wash

in 6X SSC at room temperature, followed by a wash at 68°C first in 6XSSC and then in 0.6XSSC, wherein the nucleotide sequence of SEQ ID NO:1 encodes an amino acid sequence selected from the group consisting of SEQ ID NO:3 and amino acid residues 28-299 of SEQ ID NO:3 and wherein the nucleotide sequence selected from the group consisting of SEQ ID NO:1 has at least 95%-99% amino acid identity to SEQ ID NO:3 and amino acid residues 28-299 of SEQ ID NO:3.

On p. 5-6 of the response, Applicant argues that GenBank reference does not teach each and very nucleotide of SEQ ID NO:1 and does not render the claimed invention obvious because the GenBank reference is identical to 663 nucleotides of 897 nucleotides of SEQ ID NO:1 and is not identical to 234 nucleotides in SEQ ID NO:1. Applicant argues that new claims are not patentable over the GenBank reference because the GenBank reference does not disclose a second amino acid sequence selected from the group of SEQ ID NO:3 and amino acid residues 28-299 of SEQ ID NO:3. Applicant further cites *PPG Indus., Inc. v. Guardian Indus. Corp.*, *Ex Parte Deuel* and *In re Napier* in support of the arguments. Applicant's arguments have been fully considered but it is not persuasive.

In contrast to Applicant's arguments, the DNA molecule with the GenBank accession no. AA101561 meets the limitation of the DNA oligomer recited in amended claims 18 and 21-31. First, the DNA oligomers recited in instant claims 18, 21 and 22 are not limited to a particular size, which can be any length or size as long as they can hybridize to a nucleotide sequence of SEQ ID NO:1, nucleotides 16-912 or 97-912 of SEQ ID NO:1. In addition, the recitation "a DNA oligomer capable of hybridizing in full-

length under high stringency conditions to a DNA molecule having or consisting of a nucleic acid sequence selected from the group consisting of SEQ ID NO:1, nucleotides 16-912 or nucleotides of 97-912 of SEQ ID NO:1" encompasses any fragments with different lengths derived from the sequence of SEQ ID NO:1, nucleotides 16-912 or 97-912 of SEQ ID NO:1. Thus, a DNA with a short sequence derived from SEQ ID NO:1, nucleotides 16-912 or 97-912 of SEQ ID NO:1 can hybridize in full-length to any fragments derived from SEQ ID NO:1, nucleotides 16-912 or 97-912 of SEQ ID NO:1.

The DNA molecule of AA101561 is 99.2% identical to the sequence of the instant SEQ ID NO:2 over a region of 377 bases and the SEQ ID NO:2 is 74.5% identical to the whole molecule of instant SEQ ID NO:1 as recited in instant claims and with 99.1% local similarity. Thus, the DNA fragment (oligomers) of AA101561 can hybridize to a DNA molecule having or consisting of a nucleotide sequence (fragments) of SEQ ID NO:1, nucleotides 16-912 or 97-912 of SEQ ID NO:1 with high stringency conditions as recited in instant claims 18, 21 and 22 or wherein the nucleotide sequence selected from the group consisting of SEQ ID NO:1 encodes an amino acid sequence selected from the group consisting of SEQ ID NO:3 and amino acid sequence 28-299 of SEQ ID NO:3 or encodes an amino acid sequence having at least 95%-99% amino acid identity to SEQ ID NO:3 and the amino acid residues 28-299 of SEQ ID NO:3. Note that the limitation of “wherein the nucleotide sequence selected from the group consisting of SEQ ID NO:1 encodes an amino acid sequence selected from the group consisting of SEQ ID NO:3 and amino acid sequence 28-299 of SEQ ID NO:3 or encodes an amino acid sequence having at least 95%-99% amino acid identity to SEQ ID NO:3 and the amino acid

residues 28-299 of SEQ ID NO:3" as recited in new claims encompasses fragments of SEQ ID NO:3 or amino acid residues 28-299 of SEQ ID NO:3.

Accordingly, the rejection of claims 18 and 21-31 under 35 U.S.C. 102(b) for being anticipated by GenBank accession number AA101561 (October 1996) is maintained.

New Grounds of Rejection Necessitated by the Amendment

The following rejections are new grounds of rejections necessitated by the amendment filed on 5/13/09.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 23-31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 23-31 are indefinite because the claims recite "the nucleotide sequence selected from the group consisting of SEQ ID NO:1 encodes.....". First, the recitation of "the nucleotide sequence selected from the group consisting of SEQ ID NO:1" is not "a group" because the group recited in the claims 23-31 only encompasses one nucleotide sequence, which is SEQ ID NO:1. The Group recited in the claims 23-31 is not the group recited in independent claims 18, 21 and 22.

Second, the language of claims 26-31 is not clear because SEQ ID NO:1 recited in the claims is a nucleotide sequence not an amino acid sequence. However, the

claims also recite that “SEQ ID NO:1 has at least 95%-99% amino acids sequence identity to SEQ ID NO:3 and amino acid residues 28-299 of SEQ ID NO:3”. It is not clear what limitation Applicant intended to include in the claims and thus within the scope of the claims. The examiner interprets the limitation of “SEQ ID NO:1 has at least 95%-99% amino acid identity to SEQ ID NO:3 and amino acids residues 28-299 of SEQ ID NO:3” as “SEQ ID NO:1 encodes an amino acid sequence having at least 95%-99% identity to SEQ ID NO:3 and amino acids residues 28-299 of SEQ ID NO:3”.

Third, a broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 26-31 recite the broad recitation “the nucleotide sequence selected from the group consisting of SEQ ID NO:1 has at least 95%-99% amino acid identity to SEQ ID NO:3 and amino acids residues 28-299 of SEQ ID NO:3, and the claims also recite "the nucleotide sequence

consisting of SEQ ID NO:1", which is the narrower statement of the range/limitation. The limitation of "SEQ ID NO:1 has at least 95%-99% amino acid identity to SEQ ID NO:3 and amino acids residues 28-299 of SEQ ID NO:3" is interpreted as "SEQ ID NO:1 encodes an amino acid sequence having at least 95%-99% amino acid sequence of SEQ ID NO:3 and amino acids residues 28-299 of SEQ ID NO:3". Thus, such limitation is broader and is problematic because SEQ ID NO:1 is a definite sequence and only encodes a definite amino acid sequence such as SEQ ID NO:3 or aa 28-299 of SEQ ID NO:1. If SEQ ID NO:1 can encodes variants of SEQ ID NO:3 having an amino acid sequence having at least 95%-99% amino acid identity to SEQ ID NO:3, then the nucleotide sequence of SEQ ID NO:1 is a variant and is not SEQ ID NO:1, which is broader and thus the claims are not definite.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 26-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The rejection is restated.

To provide adequate written description and evidence of possession of a claimed genus, the specification must provide sufficient distinguishing identifying characteristics of the genus. The factors to be considered include disclosure of complete or partial structure, physical and/or chemical properties, functional characteristics, structure/function correlation, methods of making the claimed product, or any combination thereof.

New claims 26-31 are drawn to an DNA oligomer capable of hybridizing in full length under high stringency conditions to a nucleic acid molecule sequence selected from the group consisting of SEQ ID NO:1, nucleotides 16-912 of SEQ ID NO:1 and nucleotides 97-912 of SEQ ID NO:1 wherein the high stringency hybridization conditions are overnight hybridization at about 68^{o}C in 6XSSC and a wash in 6X SSC at room temperature, followed by a wash at 68^{o}C first in 6XSSC and then in 0.6XSSC, wherein the nucleotide sequence of SEQ ID NO:1 has at least 95%-99% amino acid identity to SEQ ID NO:3 and amino acid residues 28-299 of SEQ ID NO:3. Applicant has not disclosed sufficient species for the broad genus of an DNA oligomer. The specification only describes SEQ ID NO:1, nucleotides 16-912 and nucleotides 97-912 of SEQ ID NO:1 encoding SEQ ID NO:3 or amino acids residues 28-299. However, the claims are not limited to the molecules as set forth above.

In making a determination of whether the application complies with the written description requirement of 35 U.S.C. 112, first paragraph, it is necessary to understand what Applicant is in possession of and what Applicant is claiming. From the specification, it is clear that Applicant is in possession of SEQ ID NO:1, nucleotides 16-

912 and nucleotides 97-912 of SEQ ID NO:1. The specification only describes SEQ ID NO:1 and nucleotides 16-912 and 97-912 of SEQ ID NO:1 and a partial structure of SEQ ID NO:1 in the form of a recitation of percent identity. There is no identification of any particular portion of the structure that must be conserved. The instant specification fails to provide sufficient descriptive information, such as definitive structural or functional features of the claimed genus of DNA oligomers. There is no description of the conserved regions which are critical to the function of the genus claimed. There is no description of the sites at which variability within the 5%-1% of amino acids that are encoded by nucleotides is and thus may be tolerated. There is no information regarding the relation of structure of other DNA oligomers to the function of SEQ ID NO:1 or nucleotides 16-912 or 97-912 of SEQ ID NO:1. Furthermore, the prior art does not provide compensatory structural or correlative teachings sufficient to enable one of skill to isolate and identify what other DNA oligomers might be. Since the common characteristics/features of other DNA oligomers are unknown, a skilled artisan cannot envision the functional correlations of the genus with the claimed invention.

Accordingly, in the absence of sufficient recitation of distinguishing identifying characteristics, the specification does not provide adequate written description of the genus of DNA oligomers.

Vas-Cath Inc. v. Mahurkar, 19USPQ2d 1111, clearly states "applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession *of the invention*. The invention is, for purposes of the 'written description' inquiry, *whatever is now claimed.*" (See page 1117.) The

specification does not "clearly allow persons of ordinary skill in the art to recognize that [he or she] invented what is claimed." (See *Vas-Cath* at page 1116). As discussed above, the skilled artisan cannot envision the detailed chemical structure of the encompassed genus of DNA oligomers, and therefore conception is not achieved until reduction to practice has occurred, regardless of the complexity or simplicity of the method of isolation. Adequate written description requires more than a mere statement that it is part of the invention and reference to a potential method of isolating it. The compound itself is required. See *Fiers v. Revel*, 25 USPQ2d 1601 at 1606 (CAFC 1993) and *Amgen Inc. v. Chugai Pharmaceutical Co. Ltd.*, 18 USPQ2d 1016.

One cannot describe what one has not conceived. See *Fiddes v. Baird*, 30 USPQ2d 1481 at 1483. In *Fiddes*, claims directed to mammalian FGF's were found to be unpatentable due to lack of written description for that broad class. The specification provided only the bovine sequence.

Therefore, the DNA oligomers have not met the written description provision of 35 U.S.C. §112, first paragraph. Applicant is reminded that *Vas-Cath* makes clear that the written description provision of 35 U.S.C. §112 is severable from its enablement provision (see page 1115).

Applicant is directed to the Guidelines for the Examination of Patent Applications Under the 35 U.S.C. 112, ¶ 1 "Written Description" Requirement. See MPEP § 2163.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18 and 21-31 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 7166703 (Baker et al., issued Jan 23, 2007, priority date June 18, 1997, cited in a prior office action). The rejection is restated.

Claims 18 and 21-31 are drawn to DNA oligomers capable of hybridizing in full length under high stringency conditions to a nucleic acid molecule sequence selected from the group consisting of SEQ ID NO:1, nucleotides 16-912 of SEQ ID NO:1 and nucleotides 97-912 of SEQ ID NO:1 wherein the high stringency hybridization conditions are overnight hybridization at about 68^{o}C in 6XSSC and a wash in 6X SSC at room temperature, followed by a wash at 68^{o}C first in 6XSSC and then in 0.6XSSC, wherein the nucleotide sequence of SEQ ID NO:1 encodes an amino acid sequence selected from the group consisting of SEQ ID NO:3 and amino acid residues 28-299 of SEQ ID NO:3 and wherein the nucleotide sequence selected from the group consisting of SEQ ID NO:1 has at least 95%-99% amino acid identity to SEQ ID NO:3 and amino acid residues 28-299 of SEQ ID NO:3.

US Patent No. 7166703 (the '703 patent) teaches a DNA molecule having SEQ ID NO:365. The sequence of SEQ ID NO:365 is 100% identical to the instant nucleotides 16-912 of SEQ ID NO:1 (see sequence alignment below). The '703 patent also teaches DNAs, primers or probes of SEQ ID NO:365 (i.e instant SEQ ID NO:1). These different primers or probes or DNAs can hybridize to nucleotides 16-912 or 97-912 of SEQ ID NO:1 under high stringency condition (see col.4, lines 1-20, in particular) because the recitation "a DNA having a nucleotide sequence of nucleotides 16-912 or 97-912 of SEQ ID NO:1" encompasses different length of fragments of 16-912 or 97-912 of SEQ ID NO:1 including probes with a short sequence, which can hybridize to any DNA sequence. Since the instant claims 18 and 21-31 fail to limit the length of "DNA oligomers", based on the definition of the condition described in the specification (p. 16-17, in particular), the DNAs, primers and probes disclosed in the '703 patent meet the limitation of the claimed DNA oligomers recited in instant claims 18 and 21-31. Thus, claims 18 and 21-31 are anticipated by US Patent No. 7166703.

Nucleotides 16-912 of SEQ ID NO:1

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US-10-131-818A-365
; Sequence 365, Application US/10131818A
; Patent No. 7166703
; GENERAL INFORMATION:
;  APPLICANT: Baker,Kevin P.
;  APPLICANT:  Beresini,Maureen
;  APPLICANT:  DeForge,Laura
;  APPLICANT:  Desnoyers,Luc
;  APPLICANT:  Filvaroff,Ellen
;  APPLICANT:  Gao,Wei-Qiang
;  APPLICANT:  Gerritsen,Mary E.
;  APPLICANT:  Goddard,Audrey
;  APPLICANT:  Godowski,Paul J.
;  APPLICANT:  Gurney,Austin L.
;  APPLICANT:  Sherwood,Steven
;  APPLICANT:  Smith,Victoria
;  APPLICANT:  Stewart,Timothy A.
;  APPLICANT:  Tumas,Daniel
;  APPLICANT:  Watanabe,Colin K
;  APPLICANT:  Wood,William
;  APPLICANT:  Zhang, Zemin
;  TITLE OF INVENTION: SECRETED AND TRANSMEMBRANE POLYPEPTIDES AND NUCLEIC
;  TITLE OF INVENTION:  ACIDS ENCODING THE SAME
;  FILE REFERENCE: P3330R1C141
;  CURRENT APPLICATION NUMBER: US/10/131,818A
;  CURRENT FILING DATE:  2002-10-17
;  PRIOR APPLICATION NUMBER: 60/049911
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;  PRIOR FILING DATE: 1997-06-18
;  PRIOR APPLICATION NUMBER: 60/056974
;  PRIOR FILING DATE: 1997-08-26
;  PRIOR APPLICATION NUMBER: 60/059113
;  PRIOR FILING DATE: 1997-09-17
;  PRIOR APPLICATION NUMBER: 60/059115
;  PRIOR FILING DATE: 1997-09-17
;  PRIOR APPLICATION NUMBER: 60/059117
;  PRIOR FILING DATE: 1997-09-17
;  PRIOR APPLICATION NUMBER: 60/059122
;  PRIOR FILING DATE: 1997-09-17
;  PRIOR APPLICATION NUMBER: 60/059184
;  PRIOR FILING DATE: 1997-09-17
;  PRIOR APPLICATION NUMBER: 60/059263
;  PRIOR FILING DATE: 1997-09-18
;  PRIOR APPLICATION NUMBER: 60/059352
;  PRIOR FILING DATE: 1997-09-19
;  PRIOR APPLICATION NUMBER: 60/059588
;  PRIOR FILING DATE: 1997-09-19
;  Remaining Prior Application data removed - See File Wrapper or PALM.
;  NUMBER OF SEQ ID NOS: 550
; SEQ ID NO 365
;   LENGTH: 1857
;   TYPE: DNA
;   ORGANISM: Homo Sapien
US-10-131-818A-365

  Query Match             100.0%;  Score 897;  DB 5;  Length 1857;
  Best Local Similarity   100.0%;  Pred. No. 0;
  Matches  897;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 ATGGGGACAAAGGCGCAAGTCGAGAGGAAACTGTTGTGCCTCTTCATATTGGCGATCCTG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         52 ATGGGGACAAAGGCGCAAGTCGAGAGGAAACTGTTGTGCCTCTTCATATTGGCGATCCTG 111

Qy         61 TTGTGCTCCCTGGCATTGGGCAGTGTTACAGTGCACTCTTCTGAACCTGAAGTCAGAATT 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        112 TTGTGCTCCCTGGCATTGGGCAGTGTTACAGTGCACTCTTCTGAACCTGAAGTCAGAATT 171

Qy        121 CCTGAGAATAATCCTGTGAAGTTGTCCTGTGCCTACTCGGGCTTTTCTTCTCCCCGTGTG 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        172 CCTGAGAATAATCCTGTGAAGTTGTCCTGTGCCTACTCGGGCTTTTCTTCTCCCCGTGTG 231

Qy        181 GAGTGGAAGTTTGACCAAGGAGACACCACCAGACTCGTTTGCTATAATAACAAGATCACA 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        232 GAGTGGAAGTTTGACCAAGGAGACACCACCAGACTCGTTTGCTATAATAACAAGATCACA 291

Qy        241 GCTTCCTATGAGGACCGGGTGACCTTCTTGCCAACTGGTATCACCTTCAAGTCCGTGACA 300
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        292 GCTTCCTATGAGGACCGGGTGACCTTCTTGCCAACTGGTATCACCTTCAAGTCCGTGACA 351

Qy        301 CGGGAAGACACTGGGACATACACTTGTATGGTCTCTGAGGAAGGCGGCAACAGCTATGGG 360
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        352 CGGGAAGACACTGGGACATACACTTGTATGGTCTCTGAGGAAGGCGGCAACAGCTATGGG 411

Qy        361 GAGGTCAAGGTCAAGCTCATCGTGCTTGTGCCTCCATCCAAGCCTACAGTTAACATCCCC 420
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        412 GAGGTCAAGGTCAAGCTCATCGTGCTTGTGCCTCCATCCAAGCCTACAGTTAACATCCCC 471

Qy        421 TCCTCTGCCACCATTGGGAACCGGGCAGTGCTGACATGCTCAGAACAAGATGGTTCCCCA 480
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        472 TCCTCTGCCACCATTGGGAACCGGGCAGTGCTGACATGCTCAGAACAAGATGGTTCCCCA 531

Qy        481 CCTTCTGAATACACCTGGTTCAAAGATGGGATAGTGATGCCTACGAATCCCAAAAGCACC 540
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        532 CCTTCTGAATACACCTGGTTCAAAGATGGGATAGTGATGCCTACGAATCCCAAAAGCACC 591

Qy        541 CGTGCCTTCAGCAACTCTTCCTATGTCCTGAATCCCACAACAGGAGAGCTGGTCTTTGAT 600
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        592 CGTGCCTTCAGCAACTCTTCCTATGTCCTGAATCCCACAACAGGAGAGCTGGTCTTTGAT 651

Qy        601 CCCCTGTCAGCCTCTGATACTGGAGAATACAGCTGTGAGGCACGGAATGGGTATGGGACA 660
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        652 CCCCTGTCAGCCTCTGATACTGGAGAATACAGCTGTGAGGCACGGAATGGGTATGGGACA 711

Qy        661 CCCATGACTTCAAATGCTGTGCGCATGGAAGCTGTGGAGCGGAATGTGGGGGTCATCGTG 720
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        712 CCCATGACTTCAAATGCTGTGCGCATGGAAGCTGTGGAGCGGAATGTGGGGGTCATCGTG 771

Qy        721 GCAGCCGTCCTTGTAACCCTGATTCTCCTGGGAATCTTGGTTTTTGGCATCTGGTTTGCC 780
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        772 GCAGCCGTCCTTGTAACCCTGATTCTCCTGGGAATCTTGGTTTTTGGCATCTGGTTTGCC 831
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Qy        781 TATAGCCGAGGCCACTTTGACAGAACAAAGAAAGGGACTTCGAGTAAGAAGGTGATTTAC 840
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        832 TATAGCCGAGGCCACTTTGACAGAACAAAGAAAGGGACTTCGAGTAAGAAGGTGATTTAC 891

Qy        841 AGCCAGCCTAGTGCCCGAAGTGAAGGAGAATTCAAACAGACCTCGTCATTCCTGGTG 897
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        892 AGCCAGCCTAGTGCCCGAAGTGAAGGAGAATTCAAACAGACCTCGTCATTCCTGGTG 948
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Conclusion

10. NO CLAIM IS ALLOWED.

11. Any inquiry of a general nature or relating to the status of this general application should be directed to the Group receptionist whose telephone number is (571) 272-1600.

Papers relating to this application may be submitted to Technology Center 1600, Group 1649 by facsimile transmission. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). Should applicant wish to FAX a response, the current FAX number for Group 1600 is (571) 273-8300.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chang-Yu Wang whose telephone number is (571) 272-4521. The examiner can normally be reached on Monday-Thursday from 8:30 AM to 6:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Stucker, can be reached at (571) 272-0911.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/CYW/
Chang-Yu Wang, Ph.D.
July 12, 2009

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/Jeffrey Stucker/
Supervisory Patent Examiner, Art Unit 1649